

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE
AT GREENEVILLE

UNITED STATES OF AMERICA

v.

XIAORONG YOU,
a/k/a SHANNON YOU

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No. 2:19-CR-14
Judge Greer

SENTENCING MEMORANDUM OF THE UNITED STATES

The United States of America, by and through the United States Attorney for the Eastern District of Tennessee, files this sentencing memorandum in compliance with the Court's Order.

On April 22, 2021, following a jury trial, the defendant was convicted of eleven counts: Count One (conspiracy to commit theft of trade secrets, in violation of 18 U.S.C. § 1832(a)(5)), Counts Two through Eight (possession of stolen trade secrets, in violation of 18 U.S.C. § 1832(a)(3)), Count Nine (wire fraud, in violation of 18 U.S.C. § 1343), Count Ten (conspiracy to commit economic espionage, in violation of 18 U.S.C. § 1831(a)(5)), and Count Eleven (economic espionage, in violation of 18 U.S.C. § 1831(a)(3)). On September 17, 2021, the United States Probation Office prepared and filed a Presentence Investigation Report ("PSR"). [Doc. 366.] The United States has filed its objections to the PSR contemporaneously with the filing of this sentencing memorandum. The PSR set forth a criminal history category of I and a total offense level of 41, which corresponds to an advisory Guidelines range of 324 to 405 months of imprisonment. If the government's objections to the PSR are adopted, the total offense level would be 43, which corresponds to an advisory guidelines range of life imprisonment.

For the reasons set forth herein, the government recommends that the defendant be sentenced to a term of imprisonment of 240 months (i.e., the statutory maximum term of imprisonment for each count of conviction, with all sentences running concurrently).

APPLICATION OF THE 18 U.S.C. § 3553(a) FACTORS

1. The Nature and Circumstances of the Offense and the History and Characteristics of the Defendant.

The defendant was convicted of various offenses related to her theft of trade secrets belonging to seven companies, information that was collectively worth hundreds of millions of dollars. Evidence at trial showed that defendant stood to personally make tens of millions of dollars as a result of her crimes, in addition to an equity stake in a China-based company that would be worth much more. Trial witnesses from the victim companies testified about why the companies invested so much time and money into the trade secrets at issue—they hoped that the unique recipes (that the defendant later stole) would allow them to succeed in the market for BPA-free beverage container coatings. The defendant herself wrote that her China-based company intended to “break” the victim companies’ hold on that market. *See, e.g.*, trial exhibit 8-b (defendant’s Thousand Talents Plan application) at 14. When trade secrets are stolen, the damage is felt not only in dollars and cents—it is often felt in lost jobs and livelihoods. Despite having worked at one of the victim companies herself, defendant has yet to demonstrate any remorse for the damage that her scheme, if successful, would have wrought on the victim companies and their employees.

The financial aspect of defendant’s crimes is bad enough. But as the jury found, the defendant—a naturalized U.S. citizen—committed those crimes intending not only to benefit herself financially, but also to benefit the Chinese government and its instrumentalities. Through her work in the United States, for U.S. companies, defendant sought to benefit not her adopted

homeland, but a foreign government. She sought not only to betray her employers, but to betray her country.

The defendant has no prior criminal history. But she nonetheless played a lead role in a complex, multi-year, international conspiracy. She is by all accounts highly educated and extremely intelligent. Not only should she have known better, but trial testimony proved that she absolutely did know better: the jury heard testimony about the many trainings she received about safeguarding sensitive information and from co-workers who testified about how her actions were so clearly out-of-bounds. The fact that she was a highly skilled professional only makes her decision to commit her crimes that much more egregious.

2. The Need for the Sentence Imposed to Reflect the Seriousness of the Offense, to Promote Respect for the Rule of Law, and to Provide Just Punishment for the Offense.

As stated above, defendant sought to betray not only her U.S. employers, but also her country. These were extremely serious offenses. For trade secret offenses that are thwarted before they can reach their ultimate goal, the U.S. Sentencing Guidelines quantify the seriousness of such offenses based largely on intended loss to the victims. *See* USSG §2B1.1. The draft PSR estimated defendant's intended loss by totaling the victim companies' development costs for the stolen trade secrets. [Doc. 366 at ¶ 24.] The Government's Objections to the PSR proposed an alternative way to estimate intended loss based on defendant's own statements about the expected profits that the new China-based company would earn (profits made possible by the stolen trade secrets), which could only be earned by stealing

customers from the victim companies.¹ By any measure, these were extremely serious offenses, and they merit a serious sentence.

The sentence must also promote respect for the rule of law. Every day, all across this country, countless employees are entrusted with valuable, proprietary information that they need in order to do their jobs. If they disclose that information—even accidentally—it would harm their employers. The consequences could range from mild to severe, including lost profits, lost jobs, lost opportunities, or worse. A sentence of 240 months would promote respect for the rule of law among the countless persons employed by or with access to the proprietary trade secrets of American businesses, who may be tempted by a foreign government or otherwise to steal such information.

In addition to those arguments of general applicability, the punishment must promote *the defendant's* respect for the rule of law. At no point in the investigation or trial did the defendant express remorse for her actions, and to the government's knowledge she has not expressed remorse since.² A sentence of 240 months should be sufficient to impress upon the defendant the need for *her* to respect the rule of law.

¹ The government does not contend that there was anything incorrect about the draft PSR's calculation of development costs. The methodology proposed in the Government's Objections to the PSR is intended only to give the Court an alternate method—one which the government believes is more appropriate—of estimating intended loss. Both estimates yield intended loss in the hundreds of millions of dollars. The government invites the Court to adopt the facts and arguments in the Government's Objections to the PSR in order to bolster the Court's ultimate finding as to intended loss. *See United States v. Pu*, 814 F.3d 818 (7th Cir. 2016) (appeals court vacated sentence and remanded for resentencing because the district court estimated intended loss merely by totaling trade-secret development costs, without evidence that such a figure represented the losses that the defendant intended to cause the victims).

² See PSR, Doc. 366, at ¶ 20 (“As of completion of the presentence investigation, the defendant has not clearly demonstrated acceptance of responsibility.”)

The defendant must be also punished justly. “A just punishment reflects the seriousness of criminal conduct . . . [and] takes into account the consequences of a defendant’s crimes, and their impact on the victims, others, and the community.” *United States v. Haughawout*, 502 F. Supp. 3d 1234, 1238 (N.D. Ohio Nov. 23, 2020). The defendant abused the extraordinary trust placed in her by dozens of people representing not fewer than eight companies, including two employers. The trial evidence proved that the defendant successfully lured the victim companies to trust her with their trade secrets. The evidence also showed that she systematically exploited that trust. This evidence included the defendant’s statements regarding the magnitude of the trust placed in her by the victim companies. *See, e.g.*, trial exhibit 4-a (Email from the defendant to Dana Breed) (“When I discuss compositional data with suppliers, no other team members are allowed to be in the room. . . . I am the only one from R&D has access [sic] to their formulations.”) The defendant was also trained and tested repeatedly by Coca-Cola and by Eastman Chemical on the importance of protecting trade secrets. [*See, e.g.*, trial exhibit 7-o (Eastman chart documenting training taken by the defendant); Doc. 341 at 86–94 (trial testimony of Paul Huesken describing Coca-Cola’s training). And the defendant signed or was named in numerous non-disclosure agreements and related documents affirming she would not possess any trade secret information except as authorized by her employer. *See, e.g.*, trial exhibit 5-d (Coca-Cola Non-Disclosure Agreement with PPG Industries); trial exhibit 6-c (Eastman Employment Agreement with Defendant); trial exhibit 6-k (Eastman Letter Reminding Defendant of Secrecy Obligation).

A just punishment must account for the effect of the defendant’s duplicity on the victim companies. That effect is severe. Contemporaneous to this memorandum, the United States is filing under seal statements from several of these victim companies. These statements confirm

that the seriousness of the defendant's offenses is tied to the trust placed in her by the victim companies and her decision to exploit that trust. They speak for themselves.

3. The Need for the Sentence Imposed to Afford Adequate Deterrence to Criminal Conduct

As noted above in the context of the need to promote respect for the law, it is important that the countless employees across the U.S. who are afforded access to valuable trade secrets know that if they attempt to illegally convert those trade secrets for their own gain, there will be serious consequences. Indeed, it is critical to U.S. economic security that theft of trade secrets be discouraged in no uncertain terms. This is especially true given the difficulty of detecting the theft of trade secrets and economic espionage, crimes frequently committed by extraordinarily intelligent people entrusted with tremendous responsibility—like the defendant. *See United States v. Martin*, 455 F.3d 1227, 1240 (11th Cir. 2006) (“Because economic and fraud-based crime are more rational, cool, and calculated than sudden crimes of passion or opportunity, these crimes are prime candidates for general deterrence.”) (internal quotations omitted). In fact, deterrence by the prospect of punishment is critical to reducing the incidence of crimes like these. *See United States v. Courtney*, 76 F. Supp. 3d 1267, 1306 (D.N.M. Dec. 15, 2014) (“[C]rimes like this one are difficult to detect with speed or certainty, and, thus, punishment must be stepped up to effectuate general deterrence.”)

Unfortunately, in this case the trial evidence shows both that the defendant *knew* that she could be prosecuted but also that she had reason to believe that, in the unlikely event that she was caught and convicted, her sentence might not be particularly severe. On April 8, 2018, the defendant received a voicemail from her sister stating:

Hey the... I was eating with Xiaoyi and the others a couple of days ago. Xiaoli [PH] was there too, and we were talking about you. And ZHOU Feng [PH] mentioned that--mentioned that you might be uh,

whatever... going to jail and something like that. Big Sis, you be careful, okay?! Try your best to pull the Italians over. Money—money is a small matter... *If you get prosecuted and stuff, and you lose your freedom, and then...* [Nervous chuckle] *I didn't know that you'd also go to jail and stuff, be in all that trouble.* The Americans are very bad! They are, uh... framing Chinese people, uh... everywhere. Okay.

Trial exhibit 9-a (WeChat Chart), row 302 (emphasis added). So, the defendant knew she could “get prosecuted . . . and lose [her] freedom, and . . . go to jail.” [*Id.*] But, she also had reason to believe that any *actual* sentence for her misconduct might be relatively lenient. As described above, the defendant received extensive training regarding the need to protect proprietary information and, specifically, trade secrets. That training included a PowerPoint that included the following slide:

1.34 Economic Impact of Trade Secret Theft

Economic Impact of Trade Secret Theft

“Ex-Voltaix Engineer Pleads Guilty To Trade Secret Charges” (Law360)

- Ph.D. chemical engineer – four counts of TS theft
- Faces up to 40 years in prison, as well as possible fines
- Agreed to relinquish his patent and shut down his plant

“Administrative Strategy on Mitigating the Theft of U.S. Trade Secrets”

- Research chemist for DuPont stole TS compounds
- DuPont valued loss of TS's at \$400M
- Scientist sentenced to 14 months in federal prison

“Ex-Valspar Chemist Gets 15 Months for Secrets Theft” (Law360)


- Pleaded guilty to stealing TS's worth as much as \$20M
- Sentenced to 15 months in federal prison
- Ordered to pay nearly \$31K to reimburse for investigation costs



Trial exhibit 7-k, at 26. Setting aside the actual facts of the cases cited in this slide, the defendant was made aware of one potential sentence and to two *actual* sentences for defendants who stole trade secrets worth up to \$400,000,000—actual sentences of only 14 and 15 months. The defendant viewed this presentation on September 7, 2017. *See* trial exhibit 7-o. The above PowerPoint presentation included a test, which the defendant passed on September 7, 2017. *Id.* Among the test questions was the following, answered correctly by the defendant:

1.53 Post Test Question 2 of 10

(Multiple Choice, 10 points, unlimited attempts permitted)



Post-Test Question 2 of 10

Trade secret theft can have serious economic and personal consequences.

☒ True

☐ False

Id. at 34. Thus, the Court can conclude that the defendant knew she was committing a crime, that she could be caught and prosecuted, and that prosecution could result in a sentence of incarceration. And yet, she was undeterred. Fortunately, she was caught. But the painful reality is that but for Eastman Chemical’s alert and prompt action, the defendant’s crimes may never have been discovered, let alone prosecuted. In this instance, deterrence through education on relatively lenient sentences clearly failed. Adequate deterrence is critical to reducing the prevalence of the grave threat that crimes like the defendant’s pose to companies that do business in the United States and to this country’s economic security generally.

The Court should impose a sentence of 240 months so that the sophisticated and highly educated people, trusted by their employers with information of incredible value, who are right now performing the same mental calculus the defendant performed in 2017 reach a different conclusion and are deterred. There is no doubt but that they are paying attention to this Court’s actions. *See Courtney*, 76 F. Supp .3d at 1306 (“Furthermore, offenders who commit crimes like this one are more sophisticated than most criminal defendants and thus more likely to be aware of the magnitude of their potential criminal exposure.”)

4. The Need for the Sentence Imposed to Protect the Public from Further Crimes of the Defendant

As a convicted trade secret thief, it is unlikely that future employers would ever trust the defendant with sensitive or proprietary information. However, trial testimony indicated that the defendant may still have access to the extraordinarily valuable trade secrets that she stole from the victims in this case.³ Those trade secrets remain valuable, and serious sums of money may still be available to the defendant from would-be competitors in the BPA-free can coating market. At least one of the filed victim company impact statements raised these exact concerns. A serious sentence would help prevent the victims in this case from the risk of being victimized once again by this defendant.

5. The Need to Avoid Unwarranted Sentence Disparities Among Defendants with Similar Records Who Have Been Found Guilty of Similar Conduct

A primary tool for avoiding sentencing disparities is, of course, the Sentencing Guidelines. While defendant's applicable Guidelines range is likely to be quite high (low end likely to be 324 months of imprisonment or higher), the government submits that a sentence of 240 months will avoid unwarranted sentencing disparities.

The new Judiciary Sentencing Information System ("JSIN") provides statistical information regarding *actual* sentences imposed.⁴ JSIN can be navigated to identify actual sentences after controlling for offense level, criminal history, and primary sentencing guideline. A search of JSIN conducted February 3, 2022, for offenders with an offense level of 41 (like the defendant), a criminal history category of I (like the defendant), and a primary sentencing

³ See Government's Objections to the Presentence Report at 2–4 (trial testimony indicated that stolen trade secrets resided on an electronic device that the FBI has not yet recovered).

⁴ JSIN is available at <https://jsin.ussc.gov/analytics/saw.dll?Dashboard>.

guideline of U.S.S.G. § 2B1.1 (like the defendant), revealed the following:

RESULT	
<u>FILTER SELECTED:</u>	
Guideline:	§2B1.1
Final Offense level:	41
Criminal History Category:	I
Guideline Range:	324-405
Export Result to Word	
<u>FEDERAL OFFENDERS IN SELECTED CELL</u>	
During the last five fiscal years (FY2016-2020), there were 16 offenders whose primary guideline was §2B1.1, with a Final Offense Level of 41 and a Criminal History Category of I, after excluding offenders who received a §5K1.1 substantial assistance departure. For the 16 offenders (100%) who received a sentence of imprisonment in whole or in part, the average length of imprisonment imposed was 194 month(s) and the median length of imprisonment imposed was 174 month(s).	

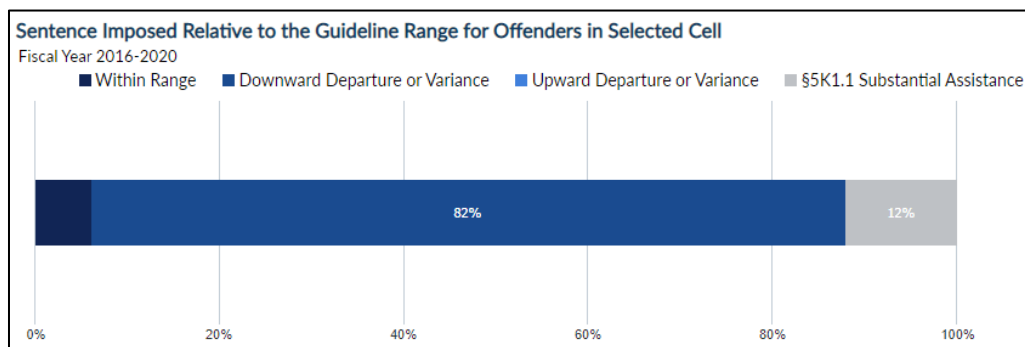
The average sentence length was 194 months, while the median was 174 months. After properly accounting for intended loss as argued in the United States' objections to the PSR, the defendant's offense level rises to 43. For that offense level, JSIN reveals the following:

RESULT	
<u>FILTER SELECTED:</u>	
Guideline:	§2B1.1
Final Offense level:	43
Criminal History Category:	I
Guideline Range:	Life
Export Result to Word	
<u>FEDERAL OFFENDERS IN SELECTED CELL</u>	
During the last five fiscal years (FY2016-2020), there were 29 offenders whose primary guideline was §2B1.1, with a Final Offense Level of 43 and a Criminal History Category of I, after excluding offenders who received a §5K1.1 substantial assistance departure. For the 29 offenders (100%) who received a sentence of imprisonment in whole or in part, the average length of imprisonment imposed was 255 month(s) and the median length of imprisonment imposed was 240 month(s).	

This search yields a greater sample size (29 versus 16 offenders) than the lower offense-level search, and a higher average (255 months) and median (240 months) sentence length. These actual sentences serve as valuable (although not dispositive) reference points in determining an appropriate sentence for the defendant—one that avoids unwarranted sentencing disparities. The Court should keep in mind that the above JSIN data represents sentences imposed on defendants

convicted of *economic crimes* as the defendant was. The best way to avoid an *unwarranted* sentencing disparity is to avoid *any* disparity at all. For this plain reason, a sentence of 240 months would satisfy this sentencing factor.

The JSIN search using the criteria applicable to the defendant yielded additional relevant insight. For example, if the Court finds that the defendant's offense level is 41, then her actual guideline range would be 324 to 405 months. If, as the United States argues, the Court finds that the defendant's offense level is 43, her corresponding guideline range would be life. In either case, a sentence of 240 months would represent a substantial downward departure from the guideline range. The JSIN data reveals that 82% of defendants with the same sentencing criteria as the defendant (criminal history category I, offense level 43, and § 2B1.1) were the beneficiaries of a downward departure or variance.



In other words, *to get to the average sentence of 240 months reflected in the JSIN data*, courts frequently had to vary downwards. The United States is not aware of factors that warrant a downward departure or variance in the present instance. But, if such factors exist, a sentence of 240 months should be the *result* of applying them, not the starting point.

SENTENCING RECOMENDATION

After considering all the evidence, and in light of the above analysis of the relevant sentencing factors, the government recommends a sentence of 240 months of imprisonment. Specifically, the government recommends the statutory maximum sentence on each count of conviction—ten years each for Counts One through Eight, twenty years for Count Nine, and fifteen years each for Counts Ten and Eleven—but recommends that all sentences run concurrently. A sentence of 240 months of imprisonment would be well below the recommended Guidelines range, which is 324–405 months under the draft PSR, and life imprisonment if the Government’s Objections to the PSR are adopted. However, the government submits that such a sentence of 240 months of imprisonment would nonetheless be sufficient but not greater than necessary to comply with the provisions of 18 U.S.C. § 3553(a)(2).

Respectfully submitted this the 7th day of February 2022.

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